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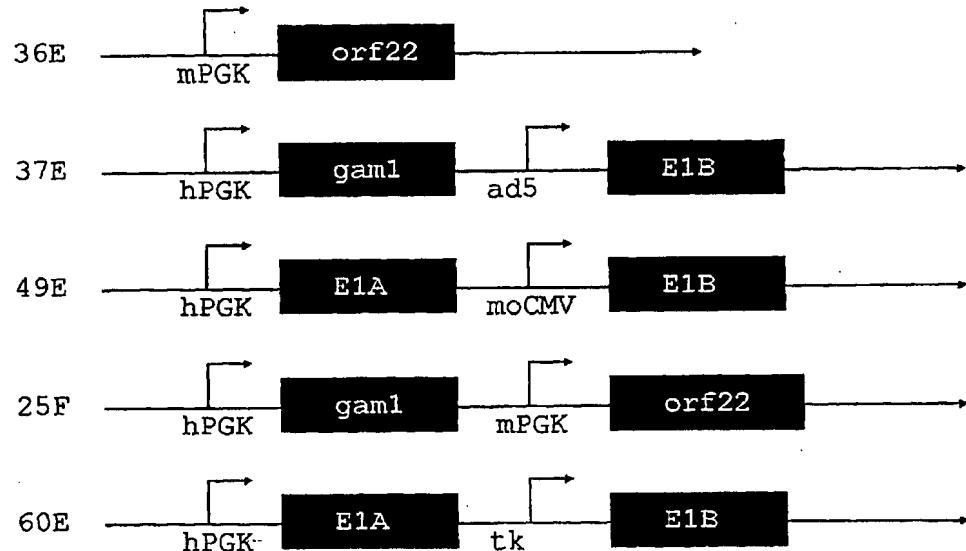
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(54) Title: IMMORTALIZED AVIAN CELL LINES FOR VIRUS PRODUCTION

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(57) Abstract: The present invention relates to immortalized avian cell lines suitable for production of biologicals or viruses for vaccination. In particular, the cell lines are derived from primary cells which are transformed with at least two viral or cellular genes, one of which causes cell cycle progression whereas the other interferes with innate protective mechanisms of the cell induced by dysregulated replication. The invention moreover relates to the production of said immortalized cell lines and their use for producing biologicals or viruses for vaccination.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12N5/06

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, BIOSIS, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>KIM H ET AL: "ALTERATIONS IN P53 AND E2F-1 FUNCTION COMMON TO IMMORTALIZED CHICKEN EMBRYO FIBROBLASTS" ONCOGENE, BASINGSTOKE, HANTS, GB, vol. 20, no. 21, 2001, pages 2671-2682, XP001157349 ISSN: 0950-9232 abstract page 2677, right-hand column, paragraphs 3,4</p> <p>-----</p> <p style="text-align: center;">-/-</p>	1-14

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Patent family members are listed in annex.

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Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Loubradou-Bourges, N

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	BENNETT MARTIN R ET AL: "Cooperative interactions between RB and p53 regulate cell proliferation, cell senescence, and apoptosis in human vascular smooth muscle cells from atherosclerotic plaques" CIRCULATION RESEARCH, vol. 82, no. 6, 6 April 1998 (1998-04-06), pages 704-712, XP002275529 ISSN: 0009-7330 abstract	1-14
Y	WAZER DAVID E ET AL: "Immortalization of distinct human mammary epithelial cell types by human papilloma virus 16 E6 or E7" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES, vol. 92, no. 9, 1995, pages 3687-3691, XP002275530 1995 ISSN: 0027-8424 the whole document	1-10
A	PASTEAU S ET AL: "PROLIFERATION OF CHICKEN NEURORETINA CELLS INDUCED BY V-SRC, IN VITRO, DEPENDS ON ACTIVATION OF THE E2F TRANSCRIPTION FACTOR" ONCOGENE, BASINGSTOKE, HANTS, GB, vol. 15, no. 1, 1997, pages 17-28, XP001179103 ISSN: 0950-9232 the whole document	1-14
A	WILLIAMS BART O ET AL: "Cooperative tumorigenic effects of germline mutations in Rb and p53" NATURE GENETICS, vol. 7, no. 4, 1994, pages 480-484, XP009028188 ISSN: 1061-4036 the whole document	1-10
A	ULRICH E ET AL: "IMMORTALIZATION OF CONDITIONALLY TRANSFORMED CHICKEN CELLS LOSS OF NORMAL P53 EXPRESSION IS AN EARLY STEP THAT IS INDEPENDENT OF CELL TRANSFORMATION" GENES AND DEVELOPMENT, vol. 6, no. 5, 1992, pages 876-887, XP009028187 ISSN: 0890-9369 the whole document	1-14
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JHA KRISHNA K ET AL: "SV40-mediated immortalization" EXPERIMENTAL CELL RESEARCH, vol. 245, no. 1, 25 November 1998 (1998-11-25), pages 1-7, XP002275531 ISSN: 0014-4827 the whole document -----	1-14
A	GIVOL I ET AL: "OVEREXPRESSION OF HUMAN P21WAF1/CIP1 ARRESTS THE GROWTH OF CHICKEN EMBRYO FIBROBLASTS TRANSFORMED BY INDIVIDUAL ONCOGENES" ONCOGENE, BASINGSTOKE, HANTS, GB, vol. 11, no. 12, 21 December 1995 (1995-12-21), pages 2609-2618, XP000614394 ISSN: 0950-9232 the whole document -----	1-14